

**Amendments to the Specification**

Please replace the paragraph beginning on page 6, line 3 with the following replacement paragraph:

Various dimensions of detector 20 may include cathode 24 size, anode 25 size, anode mesh size, the gap between the anode feature on the top anode wafer 23 and the chamber 26 hole in the fused silica wafer 22. Figure 5a shows that the diameter 28 of chamber 26 may be 5 or 9 millimeters (mm). Diameter 28 may be chosen to be consistent with the standard tube cathode 24 area. The photo cathode 24 metal platform of figure 5b may have a diameter 29 of 4, 5.6 or 8 mm. One may chose the smaller cathode and anode to increase die leverage for better cost per chip. Figure 5c notes that the ratio of anode 25 opening 31 area to the cathode 24 opening 29 area may vary from 1:1 to 0.5:1. This parameter may aid in an understanding of the interaction between a spacer silica 22 hole size 28 and an anode 25 size 31 and cathode 24 size 29. In figure 5d, anode 25 may have a mesh size width ~~[[31]]~~ 32 of 10 microns or 50 microns. This parameter may influence the anode 25 life as well as its transmission behavior. Figure 5e notes cathode silica to spacer silica seal gap 33. Gap 33 may have a width of 100, 200 or 400 microns. This parameter may be used to control potential electrical leakage due to sputter deposition.

Please replace the paragraph beginning on page 7, line 1 with the following replacement paragraph:

A process sequence may be used in making detector 20. Even though the ~~ensuring~~ ensuing steps in this description are related to only one detector device 20, the effects of the steps may be multiplied by the number of devices 20 on the wafers because the steps may be applied to whole wafer of potential devices 20. The order of the steps may be varied. Other steps may be added. Some steps may be skipped or deleted. Also, what constitutes a step may be changed. The materials mentioned in the present description are merely illustrative examples as other materials may be appropriate for the structure of the present invention.

Application Serial No. 10/735531  
Response dated September 14, 2006  
Reply to Office Action dated June 14, 2006

In the first step, a moat 34 may be patterned in cathode wafer 21 using LAM or a glass etcher. Moat 34 depth may be a parameter for splits. A first mask may be used for the pattern in etching wafer 21. This step is shown in the cross-section view of Figure 6a and the top view of Figure 6b.